

Notes from CAT-II Meeting Tuesday February 2, 2010

Attendees

CAT-II Representatives from APRFC, WGRFC, NCRFC, CBRFC, OHRFC, SERFC, LMRFC, MBRFC, MARFC.

CAT representatives from NERFC, NWRFC, CNRFC.

Region representatives: CR

Others: Chris Dietz, OHD HSEB (CHPS Project Manager), Joe Gofus, OHD HSEB, Dave Kitzmiller, OHD HSM, Edwin Welles, Deltares

Document reference: none

Agenda:

1. Forcings – what are the CAT RFCs seeing/doing to determine bias in their forecasts? Is OHD looking at this topic?

CNRFC – no progress since September workshop. They are just getting back to it. They have aligned precip with some correction factors to be applied to grids. Temperature is more complicated; it's going ok but no results yet. Each RFC must address individual sensitivity to biases in the forcings. They use Mountain Mapper to generate grids but you could use MPE. There are a couple of different ways to calculate a correction, then you apply it to the grids. It's easiest to apply the correction outside of CHPS. DaveK has received a copy of the presentation given to the CAT in January; Chris will disseminate it to all RFCs once Dave has added some extra information.

NERFC – not quite as rigorous as CNRFC. Not much to report since Tulsa either, but they are collecting data. Will conduct comparisons over the upcoming cool season (Feb/Mar). Comparing MAP/MAPX DQC to see the differences; also generating 1 year hindcasts to see if there are significant biases. The calibration MAP/MATs are already out of whack. On the whole NE is pleased with their gridded forcings.

NWRFC – creating their own local AOR for the calibration period using a program from HSMB (Mike Smith's group). They generate these historical grids, import them into CHPS and using shape files generate the MAPs; then they compare with the MAPs using points. They'll ingest all grids into their Standalone (SA) system and import all the historical MAPs ready for an analysis, then identify the biases and do like CNRFC. Temperature is more complicated but they're looking into a similar approach. There are still MPE issues - complication with synthetic stations.

CNRFC applies the bias corrections outside CHPS and feeds in the corrected grids. You could use GFE to supply the grids; it works well for temperature but not sure about precip scaling. CNRFC is not looking into applying different correction factors for convective vs stratiform because they have no basis – there's no data to tease out conditional scaling and offset factors. All they have are averages.

NWRFC uses Mike Smith's program which allows them to dump out points with bias corrections applied. An array problem with this program has been fixed. They use Auto-DQC to generate 50 years of historical grids. To get this version you need AWIPS OB9.2 installed and working then follow up with CHPS-specific additions. Contact Joe Gofus for information.

NCRFC is almost ready; they'd like to get Auto-DQC sooner rather than later. It may require an ATAN, but JoeG will deal with that. Raytheon is still trying to work on corrections for OB9.2; OHD didn't make any software changes so it's clearly a different problem. The workaround is to use OB9.1 or OB9.0. MarkG sent an email to the rfc_awips list with information.

The CATs provided some other material at previous meetings. A report from DaveK is due next quarter (Q3) and Dave will need some status updates, probably bi-weekly. Dave will send out a template showing RFCs what information he's looking for.

At the recent AMS John Schaake led a meeting on the subject of long term precip analysis based on rain gauges or radar/gauge blend where radar data are available. There were plenty of organizations represented at the meeting. The need for a national AOR was reinforced. Jamie Vavra (OS&T) is the lead for the AOR project. The group also agreed to hold a workshop later this year to continue the discussion with a targeted audience to include field and research partners.

On the subject of temperature HSMB will define some methodologies later in the year under the CHPS budget.

Action: DaveK to send out a template for CAT-II RFCs to use when sending information on their forcings activities.

2. Parallel Operations – report from the CAT RFCs? Would it be worthwhile to have a GoToMeeting with some IFD demos on parallel ops? Is there a lessons-learned or best practices page on the wiki as a result of the CAT experiences?

CNRFC runs CHPS daily. They need to validate the hydrology and figure out the forcings. Pending favorable outcomes they hope to switch over to CHPS as primary in June or July. The latest patch contained significant performance improvements. They are now getting esp up and running. Displays are now beginning to look the way they want.

NWRFC – same, doing daily runs, getting used to the system. They are not maintaining states. Still working on internal migration, setting up esp, etc. January patch provided performance improvements – the IFD is not up to IFP standards but significantly improved since before January. Ssarreg mods are working well. They'll start to maintain states in the next 2-3 weeks. Possibly go into parallel operations in February.

NERFC also didn't have much to add since the Tulsa meeting. With respect to performance their update states is 3 minutes now versus 16 minutes before. They average 1.5 seconds per forecast point via the IFD. Overall they expect to speed up service performance with new approaches to using the interface. Still working through some issues before deciding when they will be able to go operational.

ESP: NWRFC is looking to get esp runs going in CHPS for the Spring runoff. CNRFC is still working on it.

3. Site Support following Migration training – what is the agenda, who should attend (all hydrologists or just those who will be doing the migration), is this 1 ½ days or 2 full days or up to the RFC?

These Site Support visits are not training. No classes, no exercises. They are working visits with an expert from Deltares. The goal is to kick-start the migration process immediately following training. CAT-II offices should expect to spend a solid 8 hours on configuration and migration, digging quite deeply into the issues. It will be 1.5 days, ending earlier on the 2nd day. Probably there until 2pm, depends on the flights. Exception is Alaska where Peter will spend 2 full days as he has a follow-on meeting and doesn't have to fly out immediately. For those with visits at the end of a the week, Deltares will expect you to have spent the first 2 days practicing what you learned in class and doing migrations. This will generate problems, questions, and issues – it then gets the maximum benefit from the visit. One lesson learned from the CATs is a recommendation to dive straight into migration immediately after the training and do as much as you possibly can otherwise you lose the bubble.

The 3 ER DOHs got together recently. They put together an agenda for a 2-day buddy visit. RobS laid out a rough agenda but things may work out differently as the CAT-II learn and decide on better approaches.

NERFC will bring a copy of their current SA configuration to each buddy office. That will provide them with a sample configuration.

CAT-II should note they can do migrations on the SA system; they don't need a live system.

4. ESP – how is this going at the CAT RFCs? Are there still big performance issues?

Some detail is provided above. Performance for esp – NERFC has been generating daily short-term ensembles. With the old version of CHPS it was taking 40 minutes to run; with the new version it takes 15 minutes. They haven't looked into long-term ensembles yet.

5. Rating Curves – will there be any guidance on how best to update rating curves? Will we be creating ratings in OFS and then migrating them to CHPS? It sounds like ratings have been a very difficult issue to deal with from the chps_ops list – can the CAT RFCs come up with a best practices list for dealing with this?

This topic will be addressed during the Migration training. There is a question of how an individual RFC wants to manage their rating curves – do they want to pre-configure, or do they want real-time import? Edwin wanted to point out that the “date” is the end date not the start date. Regarding receipt and processing from external sources: there are currently 13 different ways to accomplish this. It would be nice to have a single method.

6. Training – the calendar shows System Management training in April and a Workshop in June – how many slots are being paid for to attend this training? Any thoughts from the CAT RFCs on number of folks to send or who to send? Do the CAT RFCs who have an IT position have their IT doing System Management?

The Workshop in June is not training. It's a gathering of RFCs to work on issues, strategies, and plans for migrating from NWSRFS and implementing CHPS. It's one person from each RFC. It will be held in Boulder.

The System Manager training is still undetermined. It isn't clear yet where it will be held – possibly centrally, possibly at a CAT RFC. We're still not sure. Chris is discussing this with the CAT and Deltares. We should know something soon.

7. Migration Training prep – looking through the migration training on the wiki page, it looks like the RFCs are supposed to bring some information (segdef punch files?) from their office. What exactly should we bring? Is there more that we can do to prepare (e.g., work on a Locations.xml file or a Thresholds.xml file)?

This topic was resolved via email so there was no need to discuss it here. Also Peter issued some pre-training instructions recently.

8. Hardware Installations – status from CAT-II

Most RFCs have completed installations of their hardware. A few also have software installed, per Randy's schedule.

9. MPE – question from Joe Gofus

Joe Gofus wanted to mention that at the MPE/DQC GoTo meeting on Tuesday they requested a list of show stoppers – i.e., things that prevent an RFC from using DQC to supply grids for CHPS. Requests were due by COB yesterday. So far 5 offices have responded. HSEB will now compile, prioritize, and send the results out along with a plan to address them.

Some RFCs noted that they are not far along enough to know what their show stoppers might be.

10. Other

Joe Ostrowski wondered if there were specific XML editors required? Chris said no but Peter @ Deltares is always recommending their use. Editors are a good way to stop you from entering wrong values or out of range values. Edwin said it will be your first stop for documentation; it runs against the xsd. The down side is an extra learning curve, but most people think it's worth it once they've had their eyes opened to it. Some RFCs are using oXygen – NWRFC has 4 oXygen licenses. There's potentially one free editor available for Linux (from sourceforge) but most have a fee associated with them. Gedit will also do the job but not quite as nicely. No one was sure if there was an XML copy editor available under the gnu license.

RobS also strongly recommends putting your configuration files into svn.

11. Next CAT-II call

Chris will target early March; probably after the final site support visit. She will distribute information soon.